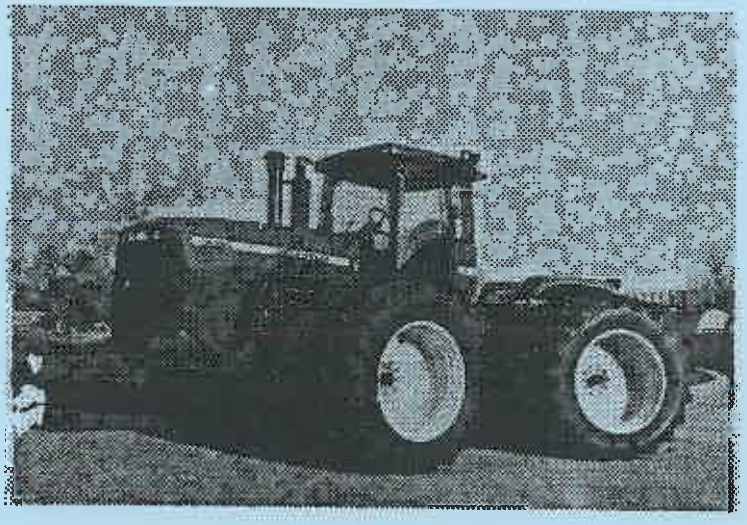
OECD APPROVAL No. 2/1768
Date of Approval: 24 August 1998

NEBRASKA TRACTOR TEST LABORATORY
DEPARTMENT OF BIOLOGICAL SYSTEMS ENGINEERING
INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES
UNIVERSITY OF NEBRASKA - EAST CAMPUS
LINCOLN, NEBRASKA 68583-0832, USA

REPORT ON TEST IN ACCORDANCE WITH OECD RESTRICTED CODE (CODE II) FOR THE OFFICIAL TESTING OF AGRICULTURAL TRACTORS



JOHN DEERE 9300 POWRSYNC (4WD) ARTICULATED - 24 SPEED
JOHN DEERE 9300 SYNCRO (4WD) ARTICULATED - 12 SPEED

MANUFACTURED BY	John Deere Waterloo Tractor Works, Tractor Division P.O. Box 270, Waterloo, Iowa 50704-0270
NEBRASKA TEST NO.	1732
TEST DATES	April 29 through May 27, 1997

This test report provides the results of the tests conducted in accordance with the OECD Standard Test Code for the Official Testing of Agricultural Tractor Performance - C(87)53 Final - Annex II, Restricted Code.

This report has been approved by the OECD Coordinating Centre in Paris (CEMAGREF) on 24 August 1998 for the John Deere 9300 PowrSync (4WD) - Articulated, and the John Deere 9300 Syncro (4WD) - Articulated with OECD No. 2/1768.

The transmissions on these two models are mechanically similar. They have the same 12 gear ratios in forward and the same 3 in reverse. The tests were not carried out on both models. The test was performed on the 24-speed model PowrSync, which had all the gear ratios present in the Syncro transmission (See pages 6 and 7). The test results are considered valid for the 12-speed model (Syncro).

An error was made when the tractors: **John Deere 9300 PowrSync (4WD)) Articulated - 24-Speed Transmission - 30 km/h Version** and **John Deere 9300 Syncro (4WD) Articulated - 12-Speed Transmission - 30 km/h Version** were tested. The Co-ordinating Centre was informed of the error when the draft test report was submitted for approval.

No reproduction of this report or any part of it can be made without prior approval by the Nebraska Tractor Test Laboratory - University of Nebraska, Lincoln, Nebraska USA.

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Date: AUG 3 1 1998

LINCOLN, NEBRASKA 68583-0832, USA

TABLE OF CONTENTS

Page

1. SPECIFICATIONS 1

2. TEST CONDITIONS 13

3. COMPULSORY TESTS
   - Main Power Take-Off Performance 15
   - Hydraulic Pump Performance 16
   - Power Lift Performance 17
   - Drawbar Performance 18

4. GRAPHS 20

5. OPTIONAL TESTS
   - Drawbar Performance at 2100 RPM 23
   - Power lift performance - Category IV Hitch 25
   - Measurement of External Sound Level 26

Manufacturers name/address	John Deere Tractor Works, 3500 East Donald Street, P.O. Box 270, Waterloo, Iowa, USA
Location of tractor assembly	Same
Submitted for test by	The manufacturer
Selected for test by	The manufacturer in agreement with the test station.
Place of running in	John Deere Product Eng. Ctr Waterloo, Iowa, USA
Duration of running in	214 hours
Location of Test	Tractor Testing Laboratory, Lincoln, Nebraska, USA

SPECIFICATIONS OF TRACTOR

Make	John Deere
Model	9300 PowrSync
Type	Articulated frame, four-wheel drive
Number of driving wheels	8
Serial Number	RW9300H001169
1st Serial number	RW9300H001001

ENGINE.

Make	John Deere
Model	6125HRW01
Type	Diesel; 4-stroke; turbocharged, air-to-air intercooled, direct injection,
Serial Number	RG6125H001919

Cylinders

Number/Disposition	6, in-line, vertical
Bore/stroke	127 mm x 165 mm
Capacity	12535 cm^3
Compression Ratio	16.0 : 1
Arrangement of valves	Overhead
Cylinder liners	Wet; replaceable

Super charging

Make/Model/Type	Garrett/RE69677/Exhaust driven,
Pressure	150 ± 15 kPa at rated engine speed

Fuel System

Feed system	Engine driven transfer pump
Make/Type/Model of filters	
Primary filter	Parker Hannifin/ RE500186/Reinforced cellulose
Secondary filter	Fleetgard/RE61552/Reinforced cellulose
Fuel tank capacity	1026 l
Fuel Cooler	None

Make/Model/Type Injection Pump	Lucas/EUI200/ Unit injector-with Lucas 24CU
Pump Serial number	0003745 (ECU)
Production setting of pump	
Flow Rate (Rated Engine Speed & Full Load)	56.7 ± 2.0 kg/h
Fuel density	0.842 kg/l
Make/Model/Type Injectors	Lucas/RE63052/(EP2196) Electronic unit injector
Injection pressure	150 MPa
Timing	Variable - controlled by electronic system
Governor	
Make/Model/Type	Lucas/Electronic control
Governed engine speed range	From 900 to 2225 rev/min
Rated engine speed	2100 rev/min
High-idle speed range	2225 ± 50 rpm
Air Cleaner.	
Pre-cleaner	
Make/Model/type	Donaldson/R128190/Strato-tube precleaner with aspirator
Air intake location	Top of air stack, right front corner of cab
Main Cleaner	
Make/Model/Type	Donaldson/RE63931/pleated paper
Location	Below pre-cleaner, right front
Secondary cleaner	Donaldson/RE63932/pleated paper
Maintenance indicator	Dash mounted warning light and audio signal
Lubrication system.	
Type of feed pump	Full pressure; positive displacement
Type of filters	Full flow, with bypass
Number	One spin-on.
Oil cooler	Heat exchanger with engine coolant
Cooling system.	
Type of coolant	Liquid
Type of pump	Centrifugal; gear driven
Fan specification	Belt driven; Suction type; variable speed
Number of fan blades	8
Fan diameter	787 mm
Coolant system capacity	60 l
Type of temperature control	Two thermostats and variable speed fan
System pressure	69 ± 5 kPa

Starting system.

Make/Model/Type of starter	Delco-Remy/RE61547/Solenoid engaged
Power Rating	6.9 kW
Cold starting aid	Ether spray in intake manifold
Safety device	Electrical lockout on gearshift

Electrical system.

Voltage & grounding.	12 Volt DC; negative ground
Generator	
Make/Model/Type	Nippondenso/RE46608/Belt driven
Power rating	140 Amp at rated engine speed and 25^0 C
Batteries	
Number & connection	Three; 12 Volt batteries in parallel.
Rating	925 cold cranking amps/battery, 175 Ah/battery at 20 h. rating

Exhaust system.

Muffler Make/Model/Type	Nelson/RE71295/Expansion chamber
Exhaust stack location	Vertical; right front corner of cab

TRANSMISSION. (tested version)

Clutch. (travel)

Make/Model/Type	John Deere/Multiple plate/oil cooled
Number of plates	7
Plate diameter	279 mm
Method of operation	Hydraulic; pedal actuated

Gear Box.

Make/Model/Type	John Deere/PowrSync/Mechanical
Arrangement	Countershaft and Planetary design consisting of one 3 speed gearbox with 4 synchronized ranges and one two-speed planetary gear set with multiplate wet disc and brake.
Number of gears	24 forward, 6 reverse; operated by three levers
Available options (Syncro)	12 forward and 3 reverse operated by 2 levers(same arrangement without the two speed planetary gear set)
Oil cooler	Heat exchanger with air

Rear axle and final drives.

Make/Model/Type	John Deere/Team Mate II 1600 series/Spiral bevel gear, differential and inboard planetary reduction
Differential Lock (optional)	
Type	Electro-hydraulic
Method of engagement	Pedal operated switch
Method of disengegement	Self-disengaging with brake pedal operation
Oil cooler	Air-to-oil

Front Axle and final drives.	
Make/Model/Type	John Deere/Team Mate II 1600 series/Spiral bevel gear, differential and inboard planetary reduction
Differential Lock (optional)	
Type	Electro-hydraulic
Method of engagement	Pedal operated switch
Method of disengegement	Self-disengaging with brake pedal operation
Oil cooler	Air-to-oil

GEAR RATIOS AND TRAVEL SPEEDS - PowrSync transmission.
(Tire dynamic radius of 905 mm ISO 4251/1-1992)

Gear Number		Number of engine revolutions for one revolution of the driving wheels	Nominal travel speed at rated engine speed of 2100 rev/min [km/h]
Forward			
1	A1 Lo	213.09	3.36
2	A1 Hi	177.76	4.03
3	A2 Lo	165.53	4.33
4	A2 Hi	138.08	5.19
5	A3 Lo	120.95	5.92
6	A3 Hi	100.89	7.10
7	B1 Lo	99.99	7.17
8	C1 Lo	90.70	7.90
9	B1 Hi	83.41	8.59
10	B2 Lo	77.67	9.22
11	C1 Hi	75.66	9.47
12	C2 Lo	70.46	10.17
13	B2 Hi	64.79	11.06
14	C2 Hi	58.77	12.19
15	B3 Lo	56.75	12.63
16	C3 Lo	51.48	13.92
17	B3 Hi	47.34	15.13
18	C3 Hi	42.94	16.69
19	D1 Lo	42.56	16.84
20	D1 Hi	35.50	20.18
21	D2 Lo	33.06	21.67
22	D2 Hi	27.58	25.98
23	D3 Lo	24.16	29.66
24	D3 Hi	20.15	35.56
Reverse			
1	A Lo	177.72	4.03
2	A Hi	148.24	4.83
3	B Lo	83.39	8.59
4	C Lo	75.65	9.47
5	B Hi	69.56	10.30
6	C Hi	63.10	11.36

Number of front wheel revolutions for one rear wheel revolution: 1.000

GEAR RATIOS AND TRAVEL SPEEDS - Syncro transmission.
(Tire dynamic radius of 905 mm ISO 4251/1-1992)

Gear Number		Number of engine revolutions for one revolution of the driving wheels	Nominal travel speed at rated engine speed of 2100 rev/min [km/h]
Forward			
1	A1	213.09	3.36
2	A2	165.53	4.33
3	A3	120.95	5.92
4	B1	99.99	7.17
5	C1	90.70	7.90
6	B2	77.67	9.22
7	C2	70.46	10.17
8	B3	56.75	12.63
9	C3	51.48	13.92
10	D1	42.56	16.69
11	D2	33.06	21.67
12	D3	24.15	29.66
Reverse			
1	A1	177.72	4.03
2	B1	83.39	8.59
3	C1	75.65	9.47

Number of front wheel revolutions for one rear wheel revolution: 1.000

POWER - TAKE - OFF.(Optional)

Main Power-Take-Off.

Type	Independent
Method of engagement	Hydraulically actuated multi-plate wet clutch operated by hand control lever
Number of shafts	One
Method of changing speeds	None

PTO Proportional to engine speed
Standard PTO-1000 rev/min.

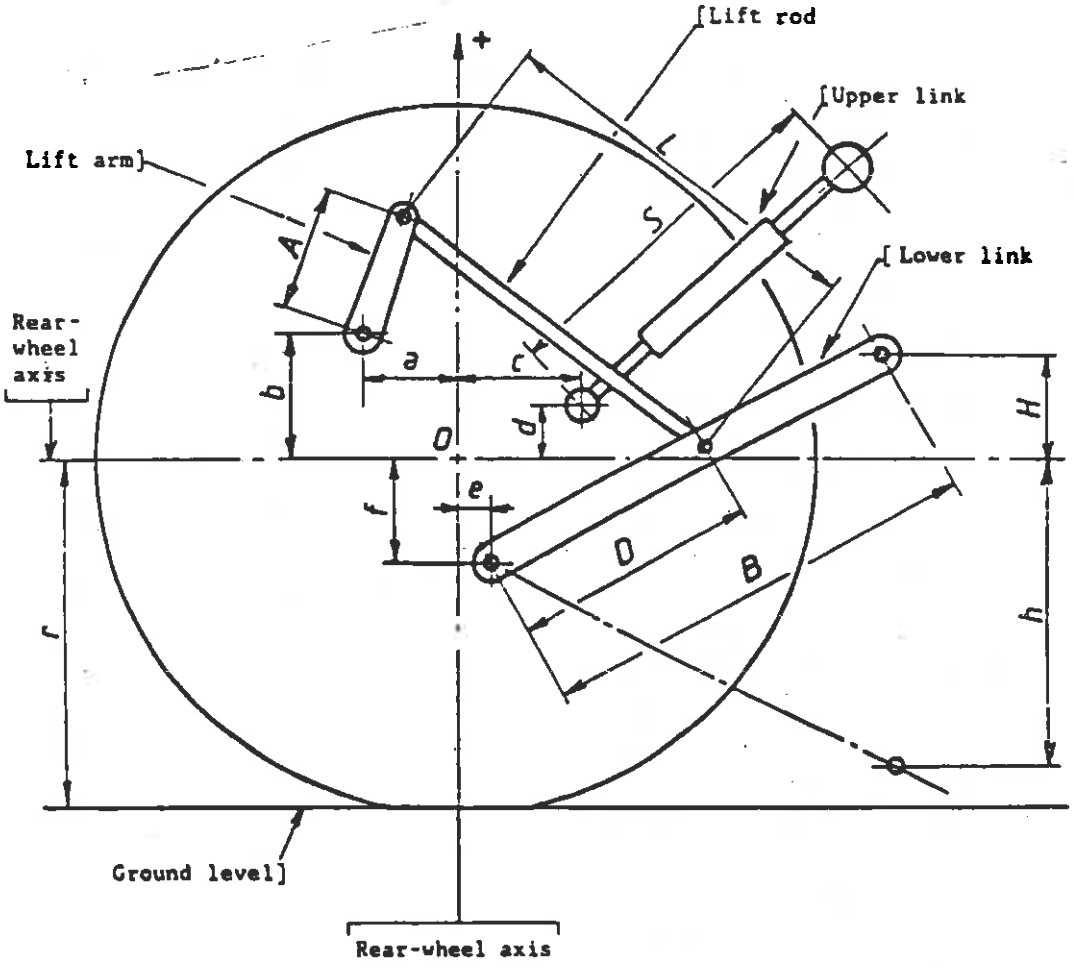
Location	Rear of tractor;center plane
Diameter of shaft	44.5 mm
Number of splines	20; conforms to ISO 500/1991
Height above ground	799 mm
Distance from median plane of tractor	0 mm
Distance behind rear axle	760 mm
PTO Speed at rated engine spd	1108 rev/min
Engine speed at Std. PTO spd	1895 rev/min
Engine speed/PTO speed ratio	1.895:1
Power restriction	None
Direction of rotation when viewed from shaft end	Clockwise.

POWER LIFT - Optional.

Make/Model/Type	John Deere/Electro-Hydraulic lower link sensing; variable mix of draft and position control; adjustable rate of drop
Type of hydraulic system	Closed center; pressure and flow compensated
Number/Type of cylinders	Two external, single acting
Bore x Stroke	Cat III: Two 90x276 mm Cat IV: One 90x276 mm and one 100x276 mm
Type of linkage lock for transport	Electro-hydraulic
Relief valve pressure setting (pump diagnostic port)	20.20 ± 0.40 MPa
Opening pressure of cylinder safety valve	23.25 ± 0.50 bar
Lift pump type	Axial piston, variable pressure and flow; Pressure and flow compensated
Power transmission to pump	Direct drive from transmission
Type/Number of filters	Spin-on canister/one
Location of oil reservoir	Under hood; engine compartment
Number/Type/Location of tapping points.	3 pairs of ISO standard couplings at rear of tractor; 4th and 5th coupler optional. Additional inlet/outlet pair for externally controlled implements
Max. oil volume available for external cylinders.	31.8 l

THREE POINT LINKAGE.

- Category 3 in conformity with ISO 730/1-1990
- Category adaptor -Quick attaching coupler



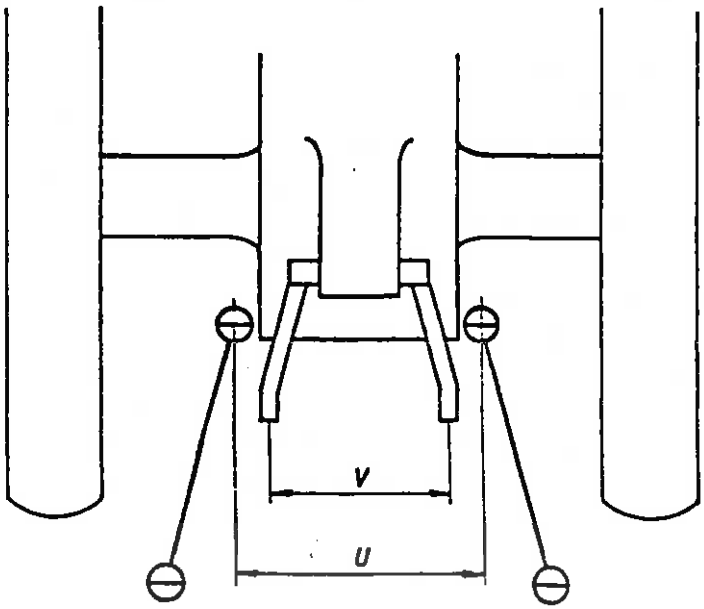


Table 1.1 - LINKAGE GEOMETRY DIMENSIONS *.

ISO Category III

			Dimension or range [mm]	Settings used [mm]
Lift category			III	III
Rear Tire - Radius Index		(r)	905	same
Front Tire - Radius Index		(r')	905	same
Length of lift arms		(A)	472	same
Length of lower links		(B)	1117	same
Distance of lift				
arm pivot from:	horizontal	(a)	244	same
rear wheel axis:	vertical	(b)	620	same
Horizontal distance between the				
2 lower link points		(U)	640	same
Horizontal distance between the				
2 lift arm end points		(V)	750	same
Length of upper link		(S)	705	
		to	825	781
Distance of upper link pivot				
point from rear wheel axis				
	horizontal	(c)	577	same
	vertical	(d)	288	same
Distance of lower				
link pivot from:	horizontal	(e)	288	same
rear wheel axis:	vertical	(f)	350	same
Distance of lower link pivot				
points to lift rod pivot pts				
on lower links.		(D)	731	same
Length of lift rods		(L)	1030	
		to	1150	1121
Height of lower hitch points				
relative to rear wheel axis				
In low position		(h)	521	
		to	724	676
In high position		(H)	89	
		to	284	118
Height above ground of lower				
hitch points when locked in				
transport position.			1005	
		to	1201	1022

* Tire dynamic index of 905 mm - ISO 4251/1-1992

SWINGING DRAWBAR.

Type		Oscillating
Height above ground to top		
	Maximum	489 mm
	Minimum	464 mm
Adjustments		Invert drawbar; removable clevis
Distances of hitch point from		
rear wheel axis-	Horizontal	1118 and 1268 mm
Distance of hitch point from		
PTO shaft end:	Vertical	300 mm
	Horizontal	358 and 508 mm
Lateral adjustment-	Right side	200 mm
	Left side	200 mm
Distance of pivot point from		
rear wheel axis-horizontal		435 and 585 mm
Diameter of drawbar pin hole		52.5 mm
Maximum vertical static		
permissible load		20 kN - both positions

STEERING.

Make/Model/Type	Eaton/RE61112/Hydrostatic
Method of operation	Steering wheel
Pump(s)	Same as main hydraulic pump
Ram(s)	Two external; double acting
Working pressure	18.4 ± 0.4 MPa

BRAKE SYSTEM.

Service brake.

Make/Model/Type	Vickers-John Deere/RE61215/load sensing power with manual backup
Method of operation	Hydraulic oil immersed disc operated by one pedal

Parking brake.

Type	Transmission lock.
Method of operation	Gear selector lever

Trailer Brake — None

WHEELS.

Number.	
Front	Four; Driving and steering
Rear	Four; Driving and steering
Wheel base	3500 mm

TRACK WIDTH ADJUSTMENT

	Minimum [mm]	Maximum [mm]	Adjustment method
Inner wheels	1689	2062	Rack axle, reversing wheels and offset rims
Outer wheels	3241	3615	Same as inner wheels

PROTECTIVE STRUCTURE

Make/Model/Type	John Deere/SG-055/Sound-Gard body
Manufacturer's name/address	John Deere Tractor Works Waterloo, Iowa, USA
Protective device	Cab; not tiltable
OECD Approval Number	
John Deere 9300 24-speed PowrSync	CSS 0415/5 - 18 Feb. 1997
John Deere 9300 12-speed Syncro	CSS 0415/6 - 18 Feb. 1997

DRIVER'S SEAT

Make/Model/Type	Sears/RE62264/Air suspension; Personal Posture Cushioning
Seat and steering wheel reversible	No
Type of suspension	Air
Type of damping	Three position viscous damper
Range of adjustment	
Longitudinal	167 mm
Vertical	140 mm
Rotation	20 degrees to the right and 14 degrees to the left
Safety belt	Yes

LIGHTING

		Height above ground of center [mm]	Size [mm]	Distance from outside edge to median plane of tractor [mm]
Head lights	**Outside**	2240	100 x 150	470
	Inside	2240	100 x 150	280
	Center	2240	100 x 150	75
Side lights	**Front**	3475	100 dia	907
	Rear	3475	100 dia	896
Rear lights	**Outside**	2065	80 x 140	975
	Inside	2065	80 x 140	773
Reflectors				
Front		1900	81 x 225	776
Rear	**Upper**	3490	81 x 225	776
	Lower	2000	95 x 210	905
	Road transport	2440	110 dia	2000

TEST CONDITIONS

Overall dimensions

Length		7315 mm
Width		
minimum		3891 mm
maximum		4265 mm
Height	Top of protective structure	3530 mm
	Top of exhaust	3896 mm
Ground clearance		360 mm
Clearance-limiting part		Drawbar rear support

Tractor Mass (with cab, full fuel tank)

		Without driver [kg]	With driver [kg]
Unballasted	Front	9234	9279
	Rear	7610	7640
	Total	16844	16919

TIRE SPECIFICATIONS.

		Front Wheels	Rear Wheels
Make		Goodyear	Goodyear
Dimensions		620/70R42	620/70R42
Number/Ply rating		2 star	2 star
Type		Radial DT 820	Radial DT 820
Maximum load (tire mfg)		4500 kg/tire	4500 kg/tire
Inflation pressure(tire mfr)	max	160 kPa	160 kPa
	tested	85 kPa	50 kPa
Dynamic Radius Index		905 mm	905 mm
Chosen track width	inner	1865 mm	1865 mm
	outer	3415 mm	3415 mm

OILS AND LUBRICATION.

Capacity and change interval:

	Capacity liter	Oil change hours	Filter change hours
Engine (w/o filter)	42.0	250	250
Transmission with rear axle and front axle	131.0	1500	750
Hydraulic system combined and Steering system	80.0	1500	750

Oil and Lubricant specifications:

	Recommended	Used during test
Engine oil		
Type	John Deere, TORQ-GARD Supreme Plus 50; SAE 15W-40	same
Viscosity	12.8 cSt at 100°C	
Classification	API CE or CD; CCMD specification D5 or D4	
Transmission		
Type	John Deere HY-GARD; J20C SAE 10W-30	same
Viscosity	58 cSt at 40°C	
Classification	NA	
Hydraulic fluid	Same as transmission	same
Steering system	Same as transmission	same
Grease	John Deere Moly High Temperature EP Grease	same
Number of lube points	20	

FUEL

Type/grade	Premier; Grade 2-D, in conformity with the National Standard
Density (Pto test)	0.842 kg/l at 15° C
(Drawbar test)	same as Pto test.
Cetane number	50.6
Viscosity	2.51 cSt at 37.8° C

COMPULSORY TESTS

1. MAIN POWER TAKE OFF

Date: 19-May-97 Location: UNL Tractor Test Lab, Lincoln, NE, USA

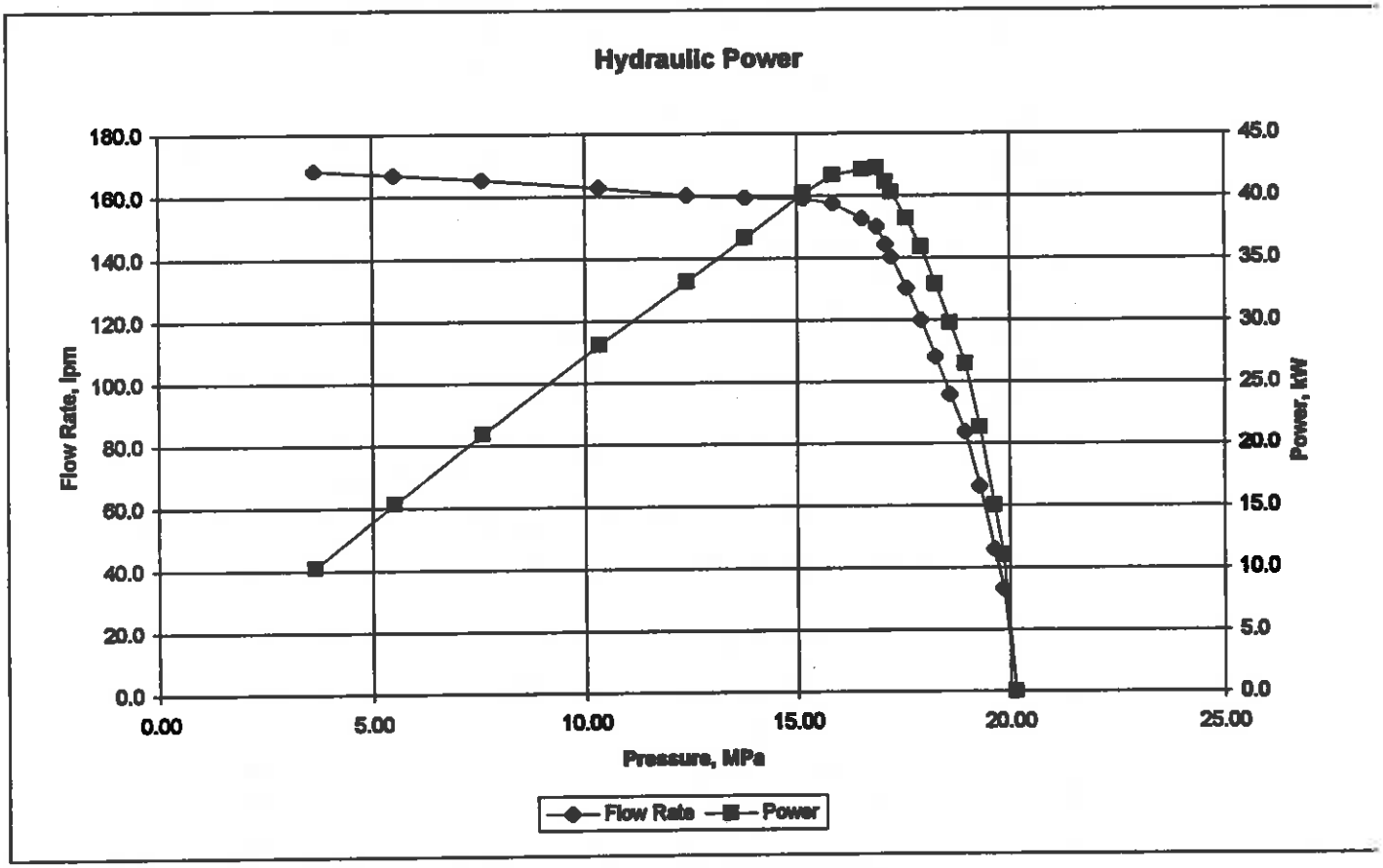
Type of dynamometer: Eddy current, Eaton

Fuel Density 0.842 kg/l

Power kW *hp*	Engine rev/min	PTO rev/min	l/h *gal/h*	kg/h *lb/hr*	kg/kW-h *lb/hp-h*	kW-h/l *hp-h/gal*
1.1 Maximum Power - 2 Hours						
267.20	1900	1003	71.58	60.24	0.225	3.73
358.32			*18.91*	*132.81*	*0.371*	*18.95*
1.2 Power at Rated Engine Speed - 1 hour						
239.03	2100	1109	66.53	55.99	0.234	3.59
320.55			*17.58*	*123.44*	*0.385*	*18.24*
1.3 Power at Standard Power Take Off Speed - 1 hour						
267.20	1900	1003	71.58	60.24	0.225	3.73
358.32			*18.91*	*132.81*	*0.371*	*18.95*
1.4 Part Loads						
1.4.1 Torque at maximum power at rated engine speed						
239.03	2100	1109	66.53	55.99	0.234	3.59
320.55			*17.58*	*123.44*	*0.385*	*18.24*
1.4.2 85% of torque obtained in 1.4.1						
207.33	2143	1132	59.51	50.08	0.242	3.48
278.04			*15.72*	*110.40*	*0.397*	*17.69*
1.4.3 75% of torque defined in 1.4.2						
156.57	2162	1141	47.66	40.28	0.257	3.27
209.97			*12.64*	*88.80*	*0.423*	*16.61*
1.4.4 50% of torque defined in 1.4.2						
104.81	2177	1149	36.54	30.75	0.293	2.87
140.56			*9.65*	*67.80*	*0.482*	*14.56*
1.4.5 25% of torque defined in 1.4.2						
52.94	2193	1157	25.67	21.77	0.411	2.05
70.99			*6.83*	*48.00*	*0.676*	*10.39*
1.4.6 unloaded						
0.83	2208	1166	15.36	12.93	15.618	0.05
1.11			*4.06*	*28.50*	*25.675*	*0.27*
1.5 Part Loads at Standard Power Take Off Speed						
1.5.1 Torque at maximum power						
267.20	1900	1003	71.58	60.24	0.225	3.73
358.32			*18.91*	*132.81*	*0.371*	*18.95*
1.5.2 85% of torque obtained in 1.5.1						
215.18	1852	977	57.57	48.44	0.225	3.74
288.56			*15.21*	*106.80*	*0.370*	*18.98*
1.5.3 75% of torque defined in 1.5.2						
164.29	1880	993	46.57	39.19	0.239	3.53
220.31			*12.30*	*86.40*	*0.392*	*17.91*
1.5.4 50% of torque defined in 1.5.2						
111.83	1920	1014	34.93	29.39	0.263	3.20
149.96			*9.23*	*64.80*	*0.432*	*16.25*
1.5.5 25% of torque defined in 1.5.2						
57.00	1962	1036	23.77	20.00	0.351	2.40
76.44			*6.28*	*44.10*	*0.577*	*12.17*
1.5.6 unloaded						
0.75	1998	1055	12.94	10.89	14.535	0.06
1.00			*3.42*	*24.00*	*23.896*	*0.29*

No load maximum engine speed:	2208	rev/min		
Equivalent torque at rated speed:	1087	N.m	*802*	*lb-ft*
Equivalent torque at maximum power:	1343	N.m	*990*	*lb-ft*
(engine speed:	1900	rev/min)		
Maximum equivalent crankshaft torque:	1590	N.m	*1173*	*lb-ft*
(engine speed:	1300	rev/min)		
Mean Dry bulb:	24	deg C	*76*	*deg F*
Wet bulb:	17	deg C	*63*	*deg F*
Relative Humidity	49	%		
Pressure:	98.2	kPa	*29.00*	*in Hg*
Maximum Coolant:	100	deg C	*212*	*deg F*
Engine Oil:	120	deg C	*248*	*deg F*
Fuel:	67	deg C	*153*	*deg F*
Air Intake:	42	deg C	*107*	*deg F*
Transmission/hydraulic oil:	79	deg C	*175*	*deg F*
Intake manifold pressure at rated speed:	122	kPa	*17.7*	*psig*
Intake manifold pressure at maximum power:	145	kPa	*21.0*	*psig*

Date of Test:	1-May-97		
Location of Test-City-State:	Tractor Test Lab, Lincoln, NE, USA		
Tapping point used for test:	Remote hydraulic outlets		
I. Sustained pressure with pump stalled:			
	20.13 MPa		
	2920 psig		
II. Pump delivery rate at minumum pressure and rated engine speed:			
	168.5 l/min		
	44.5 gpm		
III. Flow rate, pressure, power:			
90% of relief valve setting			
	105.6 l/min	18.27 MPa	32.1 kW
	27.9 gpm	*2650 psig*	*43.1 hp*
Maximum hydraulic power:			
	149.9 l/min	16.89 MPa	42.2 kW
	39.6 gpm	*2450 psig*	*56.6 hp*
IV. Hydraulic fluid temperature at flow meter:			
	65.4 °C		
	150 °F		
This hydraulic system does not use an accumulator. Opening and closing pressures of the unloading valve could not be measured.			



2.2 POWER LIFT TEST. Cat III, quick attach, 90 mm cylinders

Date of test: 23 June 1997

		Hitch points	Frame
Lower hitch points above ground - down position:	[mm/in]	229/9.0	231/9.1
Vertical movement:			
without load:	[mm/in]	793/31.3	861/33.9
with load:	[mm/in]	774/30.4	841/33.1
Maximum corrected force through full range:	[kN/lb]	62.2/13973	58.3/13104
Corresponding pressure:	[MPa/psi]	18.3/2655	
Moment about rear axle:	[kN.m/lb.ft]	97.6/71958	127.0/93694
Maximum mast tilt angle:	[deg]	--	6.7

Lifting height relative to horizontal position of lower links.

	[mm]	-318	-300	-201	-99	0
	[in]	-12.5	-11.8	-7.9	-3.9	0
Corrected lift forces						
Hitch point.	[kN]	63.6	62.2	64.6	66.6	68.6
	[lb]	14297	13973	14513	14981	14513
at frame	[kN]	63.8	63.0	63.3	63.9	63.9
	[lb]	14333	14153	14238	14364	14373

Lifting height relative to horizontal position of lower links.

	[mm]	99	201	300	401	455	526
	[in]	3.9	7.9	11.8	15.8	17.9	20.7
Corrected lift forces							
Hitch point	[kN]	70.2	71.5	72.6	73.6	73.7	--
	[lb]	15773	16079	16331	16538	16574	--
at frame	[kN]	63.6	62.9	61.6	--	59.8	58.3
	[lb]	14301	14130	13856	--	13437	13104

OECD Drawbar Data (SI)

Date of test 08-12MAY97 | Fuel density: 0.842 kg/l
Type of trac Concrete | Test number 1732

Gear	Gear designation	Power kW	Pull kN	Speed km/h	Engine speed rev/min	Slip	SFC kg/kW.h	SFE kW.h/l	Temperature, deg C Fuel	Coolant	Oil	Dry	Wet	Rel hum-idity	Baro. Pres kPa
I. Maximum Power (unballasted, 4wd at 1900 rev/min)							Tire pressure:		48 kPa, rear		83 kPa, front		Drawbar height:		470 mm
*2	A1 HI	169.23	162.88	3.74	2147	10%	0.294	2.87	63	81	109	9	5	51%	97.22
*3	A2 LO	183.39	164.79	4.01	2136	9%	0.283	2.97	62	81	109	9	4	49%	97.26
4	A2 HI	201.77	152.15	4.77	2107	9%	0.280	3.01	63	85	109	13	7	43%	97.05
5	A3 LO	211.36	141.19	5.39	2039	7%	0.272	3.10	65	88	116	14	8	45%	97.02
6	A3 HI	227.12	134.67	6.07	1900	6%	0.264	3.19	65	89	117	16	9	42%	96.95
7	B1 LO	232.01	135.29	6.17	1899	5%	0.258	3.26	65	88	116	16	9	42%	97.60
8	C1 LO	231.64	121.66	6.85	1895	4%	0.258	3.26	64	89	117	16	8	30%	97.66
9	B1 HI	231.35	110.86	7.51	1906	4%	0.256	3.29	65	89	118	17	9	40%	96.88
10	B2 LO	234.77	104.07	8.12	1906	3%	0.254	3.31	64	89	118	17	8	28%	97.60
11	C1 HI	230.87	99.75	8.33	1906	4%	0.259	3.25	66	89	119	22	13	34%	96.55
12	C2 LO	236.74	94.87	8.98	1905	3%	0.252	3.34	66	90	119	17	8	32%	97.60
13	B2 HI	230.75	84.98	9.78	1904	3%	0.260	3.23	65	91	119	19	11	36%	96.82
14	C2 HI	230.43	76.83	10.80	1902	3%	0.260	3.24	65	91	119	19	11	36%	96.78
15	B3 LO	230.73	73.90	11.24	1910	2%	0.260	3.24	65	91	119	19	12	40%	96.72
16	C3 LO	230.50	67.01	12.38	1904	2%	0.258	3.26	65	91	119	19	12	44%	96.65
17	B3 HI	229.91	61.35	13.49	1904	2%	0.259	3.24	66	94	117	21	12	36%	96.61
* Note: Slip limited to prevent excess bouncing.															
II. Part loads (unballasted, 4wd)															
II.1 in selected gear at maximum power at rated engine speed.															
12	C2 LO	212.94	77.10	9.94	2097	2%	0.263	3.20	65	90	118	17	8	29%	97.60
II.1.1 75% of pull at maximum power at rated engine speed															
12	C2 LO	165.82	58.29	10.24	2150	2%	0.288	2.93	65	88	115	13	9	57%	97.53
II.1.2 50% of pull at maximum power at rated engine speed															
12	C2 LO	112.32	38.90	10.40	2172	1%	0.329	2.56	61	83	110	15	9	50%	97.46
II.1.3 higher gear at reduced engine speed, same pull and travel speed as II.1.1															
13	B2 HI	166.02	58.14	10.28	1984	2%	0.282	2.98	60	86	111	14	9	54%	97.49
II.1.4 higher gear at reduced engine speed, same pull and travel speed as II.1.2															
13	B2 HI	112.45	38.93	10.40	1998	2%	0.319	2.64	59	81	107	16	9	46%	97.43
II.1.5 higher gear at reduced engine speed, same pull and travel speed as II.1.3															
16	C3 LO	166.02	58.43	10.23	1569	2%	0.262	3.21	61	84	108	14	9	53%	97.49
II.1.6 higher gear at reduced engine speed, same pull and travel speed as II.1.4															
16	C3 LO	112.46	38.96	10.39	1586	2%	0.294	2.86	56	81	104	16	10	47%	97.43
II.2 in selected gear nearest to 7.5 km/h at rated engine speed.															
7	B1 LO	212.61	110.09	6.95	2105	4%	0.263	3.20	66	88	117	16	9	39%	97.60
II.2.1 75% of pull at maximum power at rated engine speed															
7	B1 LO	164.63	82.75	7.16	2152	3%	0.281	2.99	66	88	114	23	13	32%	96.51
II.2.2 50% of pull at maximum power at rated engine speed															
7	B1 LO	111.90	55.19	7.30	2174	2%	0.312	2.70	66	85	111	24	14	33%	96.51
II.2.3 higher gear at reduced engine speed, same pull and travel speed as II.2.1															
8	C1 LO	164.58	82.71	7.16	1952	3%	0.269	3.12	66	88	113	23	13	32%	96.51
II.2.4 higher gear at reduced engine speed, same pull and travel speed as II.2.2															
8	C1 LO	112.21	55.12	7.33	1979	2%	0.297	2.83	65	84	109	24	14	33%	96.51
II.2.5 higher gear at reduced engine speed, same pull and travel speed as II.2.3															
12	C2 LO	164.71	82.78	7.16	1516	3%	0.256	3.29	65	89	111	23	13	32%	96.51
II.2.6 higher gear at reduced engine speed, same pull and travel speed as II.2.4															
12	C2 LO	111.94	55.08	7.32	1535	2%	0.276	3.05	63	84	105	24	14	33%	96.51

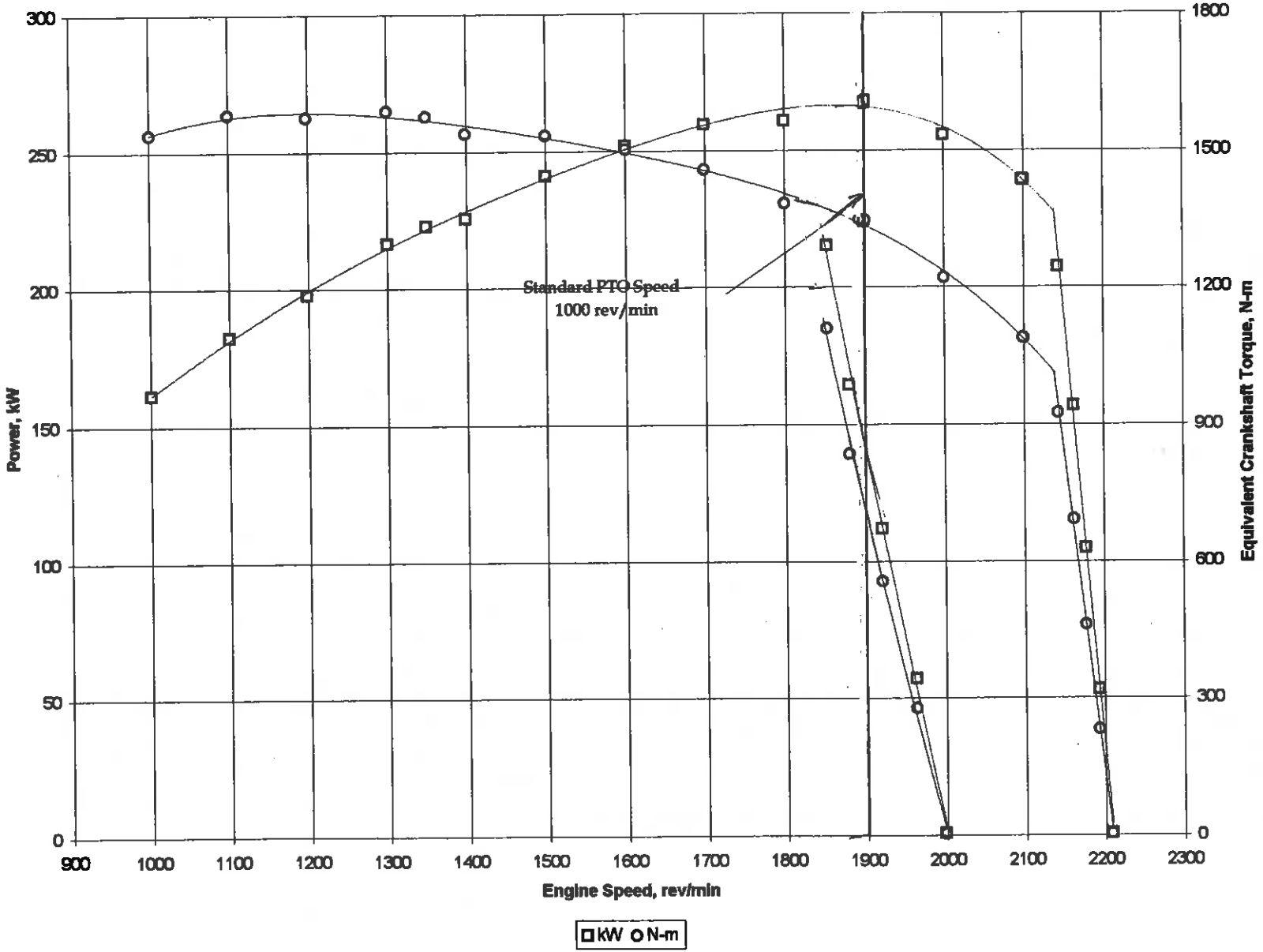
OECD Drawbar Data (US)

Date of test 8-12MAY97 | Fuel density: 7.023 lb/gal
Type of trac Concrete | Test number 1732

Gear	Gear designation	Power hp	Pull lb	Speed mph	Engine speed rev/min	Slip	SFC lb/hp.h	SFE hp.h/gal	Temperature, deg F: Fuel	Coolant	Oil	Dry	Wet	Rel humidity	Baro. Pres in Hg
I. Maximum Power (unballasted, 4wd at 1900 rev/min)							Tire pressure:		7 psig, rear		12 psig, front		Drawbar height:	18.5 in	
*2	A1 HI	226.94	36618	2.32	2147	10%	0.483	14.54	145	179	229	49	41	51%	28.71
*3	A2 LO	245.93	37047	2.49	2136	9%	0.466	15.07	143	179	229	48	40	49%	28.72
4	A2 HI	270.58	34206	2.97	2107	9%	0.460	15.26	145	185	229	56	45	43%	28.66
5	A3 LO	283.44	31741	3.35	2039	7%	0.447	15.72	149	190	241	58	47	45%	28.65
6	A3 HI	304.57	30275	3.77	1900	6%	0.434	16.17	149	192	243	60	48	42%	28.63
7	B1 LO	311.13	30415	3.84	1899	5%	0.424	16.55	149	191	242	60	48	42%	28.82
8	C1 LO	310.64	27350	4.26	1895	4%	0.425	16.53	148	192	243	61	46	30%	28.84
9	B1 HI	310.25	24923	4.67	1906	4%	0.421	16.68	149	192	244	62	49	40%	28.61
10	B2 LO	314.04	23397	5.05	1906	3%	0.418	16.80	148	192	245	62	46	28%	28.82
11	C1 HI	309.61	22425	5.18	1906	4%	0.426	16.50	151	193	247	72	55	34%	28.51
12	C2 LO	317.48	21329	5.58	1905	3%	0.414	16.96	150	195	246	62	47	32%	28.82
13	B2 HI	309.44	19104	6.07	1904	3%	0.428	16.41	150	196	246	66	51	36%	28.59
14	C2 HI	309.01	17271	6.71	1902	3%	0.428	16.42	150	196	246	66	51	36%	28.58
15	B3 LO	309.42	16614	6.98	1910	2%	0.427	16.46	150	197	246	67	53	40%	28.56
16	C3 LO	309.11	15064	7.69	1904	2%	0.425	16.54	150	195	246	67	54	44%	28.54
17	B3 HI	308.32	13792	8.38	1904	2%	0.426	16.47	150	201	243	70	54	36%	28.53
* Note: Slip limited to prevent excess bouncing.															
II. Part loads (unballasted, 4wd)															
II.1 in selected gear at maximum power at rated engine speed.															
12	C2 LO	285.56	17332	6.18	2097	2%	0.432	16.26	149	194	244	63	47	29%	28.82
II.1.1 75% of pull at maximum power at rated engine speed															
12	C2 LO	222.36	13105	6.36	2150	2%	0.473	14.85	148	191	239	56	48	57%	28.80
II.1.2 50% of pull at maximum power at rated engine speed															
12	C2 LO	150.63	8744	6.46	2172	1%	0.541	12.98	142	182	230	59	49	50%	28.78
II.1.3higher gear at reduced engine speed, same pull and travel speed as II.1.1															
13	B2 HI	222.64	13072	6.39	1984	2%	0.464	15.15	141	187	233	58	49	54%	28.79
II.1.4 higher gear at reduced engine speed, same pull and travel speed as II.1.2															
13	B2 HI	150.80	8751	6.46	1998	2%	0.525	13.38	139	178	225	60	49	46%	28.77
II.1.5 higher gear at reduced engine speed, same pull and travel speed as II.1.3															
16	C3 LO	222.64	13135	6.36	1569	2%	0.431	16.29	142	184	226	57	48	53%	28.79
II.1.6 higher gear at reduced engine speed, same pull and travel speed as II.1.4															
16	C3 LO	150.81	8758	6.46	1586	2%	0.484	14.52	133	178	219	61	50	47%	28.77
II.2 in selected gear nearest to 4.6 mph at rated engine speed.															
7	B1 LO	285.11	24750	4.32	2105	4%	0.433	16.23	151	191	242	61	48	39%	28.82
II.2.1 75% of pull at maximum power at rated engine speed															
7	B1 LO	220.78	18602	4.45	2152	3%	0.462	15.20	150	191	237	73	55	32%	28.50
II.2.2 50% of pull at maximum power at rated engine speed															
7	B1 LO	150.06	12407	4.54	2174	2%	0.512	13.71	151	185	233	75	57	33%	28.50
II.2.3 higher gear at reduced engine speed, same pull and travel speed as II.2.1															
8	C1 LO	220.70	18593	4.45	1952	3%	0.443	15.85	150	191	235	74	56	32%	28.50
II.2.4 higher gear at reduced engine speed, same pull and travel speed as II.2.2															
8	C1 LO	150.48	12392	4.55	1979	2%	0.489	14.36	149	183	228	75	57	33%	28.50
II.2.5 higher gear at reduced engine speed, same pull and travel speed as II.2.3															
12	C2 LO	220.88	18610	4.45	1516	3%	0.420	16.71	149	193	232	74	56	32%	28.50
II.2.6 higher gear at reduced engine speed, same pull and travel speed as II.2.4															
12	C2 LO	150.11	12383	4.55	1535	2%	0.454	15.46	145	183	222	75	57	33%	28.50

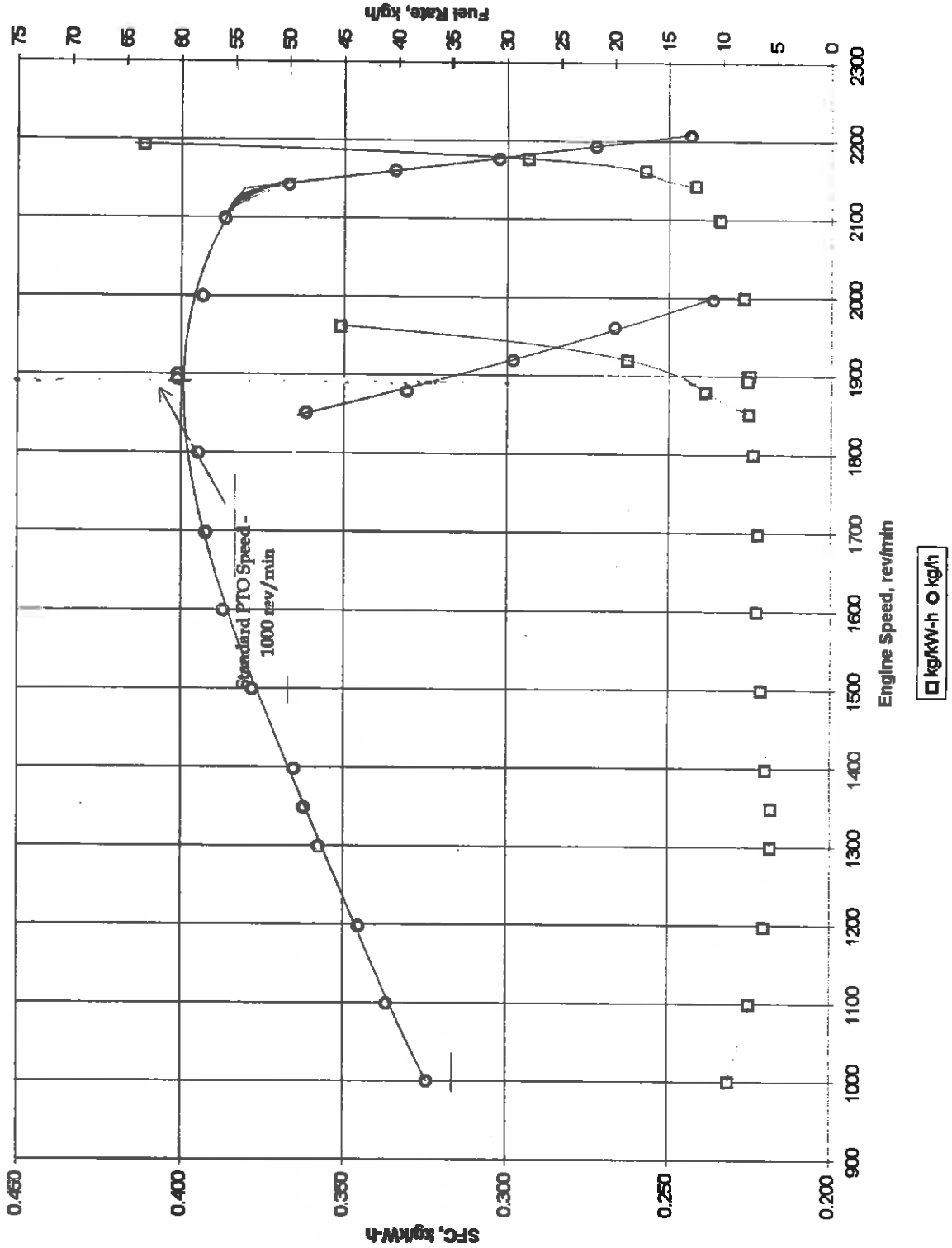
John Deere 9300

Power and Equivalent Crankshaft Torque



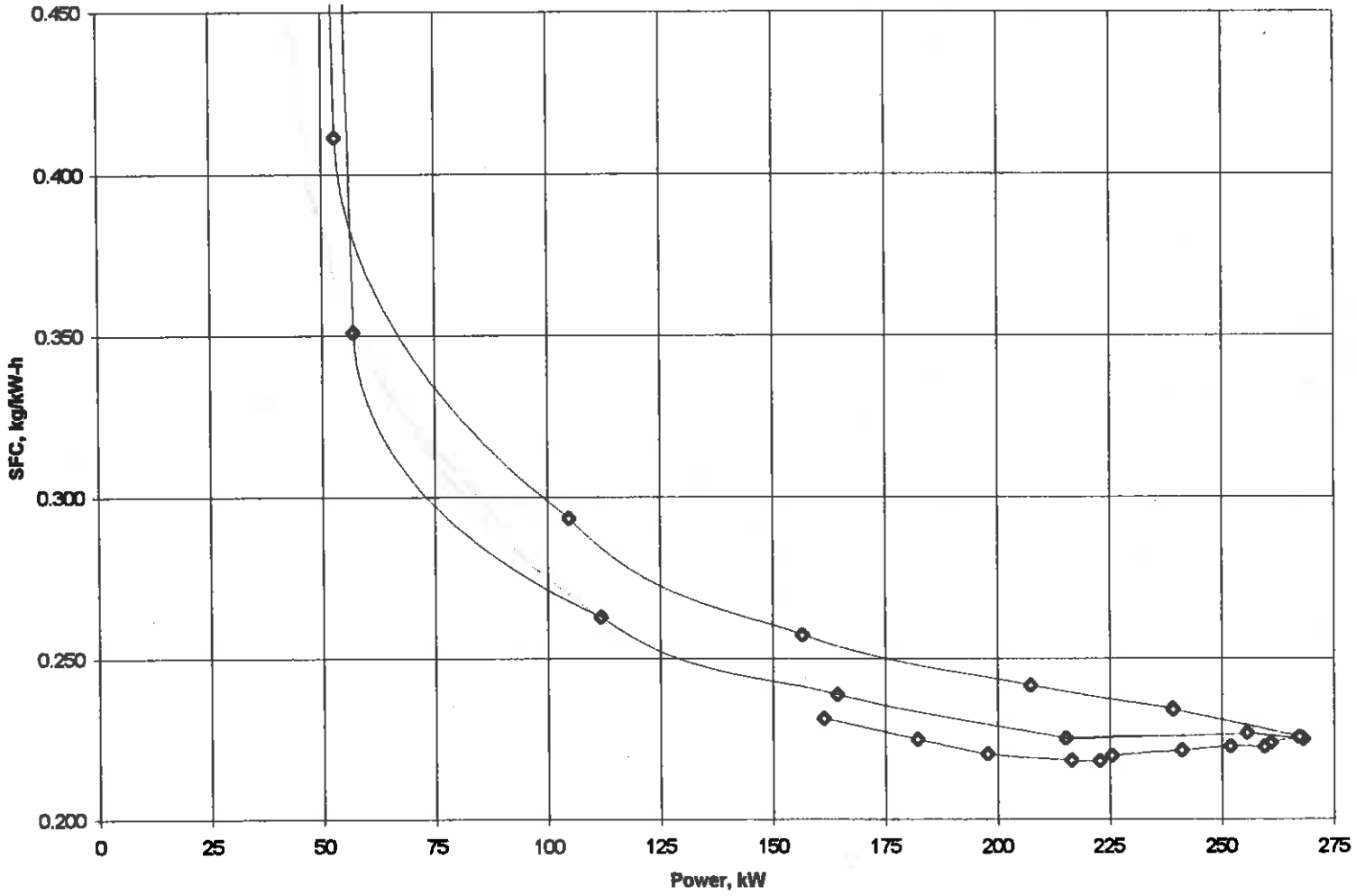
John Deere 9300

Specific Fuel Consumption and Fuel Rate



John Deere 9300

Power and Specific Fuel Consumption



Optional Tests - Drawbar Performance at 2100 RPM

OECD Drawbar Data (SI)

Date of tests 08-12MAY97 — Fuel density: 0.842 kg/l
Type of trac Concrete — Test number: 1732

Gear	Gear designation	Power kW	Pull kN	Speed km/h	Engine speed rev/min	Slip	SFC kg/kW.h	SFE kW.h/l	Temperature, deg C Fuel	Coolant	Oil	Dry	Wet	Rel humidity	Baro. Pres kPa
I. Maximum Power (unballasted, 4wd at 2100 rev/min)							Tire pressure:		48 kPa, rear		83 kPa, front		Drawbar height:	470 mm	
*3	A2 LO	184.03	165.31	4.01	2135	9%	0.285	2.95	62	81	108	9	4	49%	97.26
4	A2 HI	200.47	152.36	4.74	2098	9%	0.282	2.99	64	85	111	13	7	43%	97.05
5	A3 LO	207.88	133.28	5.61	2098	6%	0.271	3.11	65	88	116	14	8	44%	97.05
6	A3 HI	209.13	109.81	6.86	2101	4%	0.268	3.14	64	88	113	15	8	41%	96.99
7	B1 LO	212.61	110.09	6.95	2105	4%	0.263	3.20	66	88	117	16	9	39%	97.60
8	C1 LO	212.42	99.66	7.67	2099	3%	0.263	3.20	67	89	118	16	8	30%	97.70
9	B1 HI	211.72	91.33	8.35	2097	3%	0.264	3.19	65	90	117	17	9	40%	96.92
10	B2 LO	213.19	85.35	8.99	2096	3%	0.262	3.22	64	89	118	17	8	28%	97.63
11	C1 HI	210.66	82.18	9.23	2097	3%	0.265	3.17	66	89	118	17	9	37%	96.88
12	C2 LO	212.94	77.10	9.94	2097	2%	0.263	3.20	65	90	118	17	8	29%	97.60
13	B2 HI	210.11	69.98	10.81	2094	2%	0.264	3.19	66	92	117	19	10	32%	96.82
14	C2 HI	207.26	62.37	11.96	2097	2%	0.271	3.10	66	90	118	19	11	36%	96.78
15	B3 LO	207.40	60.25	12.39	2096	2%	0.270	3.11	66	91	118	19	12	40%	96.75
16	C3 LO	206.24	54.34	13.66	2093	2%	0.273	3.08	66	91	118	20	12	41%	96.68

* Note: Slip limited to prevent excess bouncing.

OECD Drawbar Data (US)

Date of tests 8-12MAY97 — Fuel density: 7.023 lb/gal
Type of trac Concrete — Test number: 1732

Gear	Gear designation	Power hp	Pull lb	Speed mph	Engine speed rev/min	Slip	SFC lb/hp.h	SFE hp.h/gal	Temperature, deg F Fuel	Coolant	Oil	Dry	Wet	Rel humidity	Baro. Pres in Hg
I. Maximum Power (unballasted, 4wd at 2100 rev/min)							Tire pressure:		7 psig, rear		12 psig, front		Drawbar height:	18.5 in	
*3	A2 LO	246.78	37163	2.49	2135	9%	0.468	15.00	143	178	226	48	40	49%	28.72
4	A2 HI	268.84	34252	2.94	2098	9%	0.463	15.17	147	185	232	56	45	43%	28.66
5	A3 LO	278.77	29964	3.49	2098	6%	0.445	15.77	149	190	241	57	46	44%	28.66
6	A3 HI	280.44	24686	4.26	2101	4%	0.441	15.92	147	190	236	59	47	41%	28.64
7	B1 LO	285.11	24750	4.32	2105	4%	0.433	16.23	151	191	242	61	48	39%	28.82
8	C1 LO	284.87	22405	4.77	2099	3%	0.432	16.25	152	192	244	61	46	30%	28.85
9	B1 HI	283.92	20532	5.19	2097	3%	0.434	16.18	149	195	242	62	49	40%	28.62
10	B2 LO	285.89	19188	5.59	2096	3%	0.430	16.32	148	193	245	62	46	28%	28.83
11	C1 HI	282.50	18474	5.73	2097	3%	0.436	16.10	150	192	244	63	49	37%	28.61
12	C2 LO	285.56	17332	6.18	2097	2%	0.432	16.26	149	194	244	63	47	29%	28.82
13	B2 HI	281.77	15733	6.72	2094	2%	0.434	16.17	151	197	243	66	50	32%	28.59
14	C2 HI	277.94	14021	7.43	2097	2%	0.446	15.74	151	194	245	66	51	36%	28.58
15	B3 LO	278.13	13546	7.70	2096	2%	0.444	15.80	150	195	244	67	53	40%	28.57
16	C3 LO	276.57	12216	8.49	2093	2%	0.449	15.64	150	195	245	68	54	41%	28.55

* Note: Slip limited to prevent excess bouncing.

Table 1.2 - LINKAGE GEOMETRY DIMENSIONS *.

ISO Category IV

				Dimension or range [mm]	Settings used [mm]
Lift category				IV	IV
Rear Tire - Radius Index		(r)		905	same
Front Tire - Radius Index		(r')		905	same
Length of lift arms		(A)		472	same
Length of lower links		(B)		1097	same
Distance of lift					
arm pivot from:	horizontal	(a)		244	same
rear wheel axis:	vertical	(b)		620	same
Horizontal distance between the					
2 lower link points		(U)		640	same
Horizontal distance between the					
2 lift arm end points		(V)		750	same
Length of upper link		(S)		705	
			to	825	770
Distance of upper link pivot					
point from rear wheel axis					
	horizontal	(c)		577	same
	vertical	(d)		288	same
Distance of lower					
link pivot from:	horizontal	(e)		288	same
rear wheel axis:	vertical	(f)		350	same
Distance of lower link pivot					
points to lift rod pivot pts					
on lower links.		(D)		718	same
Length of lift rods		(L)		1030	
			to	1150	1124
Height of lower hitch points					
relative to rear wheel axis					
In low position		(h)		521	
			to	724	669
In high position		(H)		89	
			to	284	118
Height above ground of lower					
hitch points when locked in					
transport position.				1005	
			to	1201	1023

* Tire dynamic index of 905 mm - ISO 4251/1-1992

2.2 POWER LIFT TEST. Cat IV, quick attach, 90/100 mm cylinders

Date of test: 22 June 1997

		Hitch points	Frame
Lower hitch points above ground - down position:	[mm/in]	236/9.3	216/8.5
Vertical movement:			
without load:	[mm/in]	787/31.0	861/33.9
with load:	[mm/in]	765/30.1	833/32.8
Maximum corrected force through full range:	[kN/lb]	68.6/15431	64.0/14382
Corresponding pressure:	[MPa/psi]	18.3/2655	
Moment about rear axle:	[kN.m/lb.ft]	105.4/77795	137.3/101273
Maximum mast tilt angle:	[deg]	--	5.3

Lifting height relative to horizontal position of lower links.

	[mm]	-330	-310	-300	-201	-99	0
	[in]	-13.0	-11.8	-11.8	-7.9	-3.9	0
Corrected lift forces							
Hitch point.	[kN]	69.5	68.6	70.8	73.6	77.6	79.0
	[lb]	15620	15431	15926	16538	17456	17623
at frame	[kN]	70.1	69.0	--	69.4	70.3	70.4
	[lb]	15759	15512	--	15602	14364	15818

Lifting height relative to horizontal position of lower links.

	[mm]	99	201	300	401	455	511
	[in]	3.9	7.9	11.8	15.8	17.9	20.1
Corrected lift forces							
Hitch point	[kN]	77.6	79.0	80.3	81.2	81.4	--
	[lb]	17456	17762	18050	18266	18293	--
at frame	[kN]	70.0	69.2	67.8	--	65.7	64.0
	[lb]	15732	15561	15237	--	14778	14382

MEASUREMENT OF EXTERNAL NOISE LEVEL

Date of Test	May 9, 1997
Sound Level Meter Make/Model/Type	Bruel and Kjaer 2236
Type of track	Concrete oval
Gear number	24th (D-3-HI)
Travel speed before acceleration	28.0 km/h
Sound Level	89.0 dB(A)

Repairs: None

Remarks: An error was made when the hand throttle was set back to perform the varying load tests. The hand throttle was set at a position that produced PTO speeds less than 1,000 rev/min. The tractor is not available for a retest. The applied loads were based on an incorrect load and resulted in loads that were 2.8% low.